

The climate of Oregon is buffered by the Pacific Ocean and is characterized as mild. The coastline hugs the state's western border, which moderates the winter and summer seasons. The state's coastal range varies between 2000 to 4000 feet, which forces moisture rich air masses to rise and cool. The result is condensation and heavy rainfalls as it moves eastward towards Portland Harbor. According to the Western Regional Climate Center (WRCC), monthly average winter temperatures ranged from 45° F (January) to 60° F (July) summer temperatures. In the Willamette valley the climate is relatively calm with wet winters and dry summers. Mean winter temperatures in January ranged from 38° F to summer temperatures of 66° F in July. The climate of eastern Oregon is much drier than maritime western Oregon due to the rain shadow effect and, as a result has a greater seasonal variation in temperature. The normal mean winter temperature in January ranges from 25° to 28° F in southeastern Oregon and 29° to 33° F in northwestern Oregon. In July normal summer temperature range between 65° to 70° F in the central valleys and plateau regions to 70° to 78° F along the eastern border. One-half of total annual precipitation falls from December through February west of the cascades, with one-fourth in the spring and fall. There is very little rain during the summer months. Annual normal precipitation is 75 to 90 inches along the coast and increases to 200 inches on the western coast range to the crest. Precipitation decreases rapidly on the east side downward. On the great plateau annual average precipitation is low; approximately 8 inches. In the Columbia River Basin and in the Blue Mountains, total rainfall varies from 15 to 20 inches. Occasionally it exceeds 35 inches. Prevailing wind in the Columbia Gorge tends to follow the orientation of the gorge at that point, with wind patterns of the Willamette valley also aligning north-south of its valley. Severe storm events can also dominate direction and increase wind magnitude. For example in Portland, gusts with instantaneous speeds of 75 to 80 miles per hour are occasionally observed and several times each year winds speeds approach hurricane force of +74 miles per hour along the Oregon coast.